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ABSTRACT

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The Adolescent Smoking and Health Project

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Abstract

This project was designed to specifically apply a health planning management system to a school based health education risk reduction program. Additionally, the Adolescent Smoking and Alcohol Project assisted youth in making informed decisions about the use/abuse of alcohol and cigarettes. Program components included a related knowledge base; communication, decision-making, coping, assertiveness and peer pressure building activities; and, intervention activities such as smoking cessation, peer counseling, or teenage pregnancy classes. The results of the data analysis indicated that some program behavioral objectives had been attained, thus indicating health education interventions can produce measureable results.

Introduction

The Adolescent Smoking and Alcohol Project (ASAP) was developed with National Risk Reduction funds*, to address adolescent alcohol and cigarette smoking problems based on local and national late seventies statistics. Found in the literature were that 8,000 youth die each year as a result of drunk driving accidents (USDHEW, Alcohol: A Family Affair, 1974). The proportion of teenagers who have experienced drunkness has increased from 19 percent in 1966 to approximately 45 percent in 1975 (USDAEW, Summary of Third Report on Alcohol & Health, 1978), and the number of teenage problem drinkers is estimated to be 3.3 million (Gonzales, 1978). Additionally 4,000 children are becoming smokers daily (Baker, 1978) and children are smoking at an earlier age (Miles, 1974).

Based upon these statistics, the primary project purpose was to assist young people in making responsible decisions about the use of alcohol and cigarettes. A second project purpose was to apply the Centers for Disease Control Health Analysis Planning Model (HAPPS) in an educational setting. HAPPS is specifically designed to assist program managers in developing effective and measureable program planning, implementation, and evaluation skills, as well as utilizing a rationale systems approach to project management.

* This project was funded by the Florida Department of Health and Rehabilitative Services

Program Design Strategies

The initially funded program proposal was redesigned to reflect HAPPS guidelines. Timelines were also adjusted according to the management systems specifications. Briefly, the HAPPS framework is a seventeen step process starting with goal selection and ending with a determination of future program direction. Addressed in the planning model are the questions of (1) Where am I? (Steps 1-3); (2) Where do I want to be? (Steps 6-10) and; (3) How do I know I am getting there? (Steps 11-17).

The major goal of the project was first established to improve the health status of Putnam County residents through health education/risk reduction efforts designed to reduce mortality, disability, and premature mortality. This goal identified the primary purpose of the project as well as indicating philosophical and operational guidelines. Next, project staff reviewed the related available current health education literature noting especially program design strategies and critical assessments of previously developed smoking and alcohol programs. The following are examples of programs that were reviewed: Here's Looking at You, the Alcohol Education Curriculum Project in Seattle, Washington; Harbor Teenage Alcohol Abuse Prevention Program, New York City; Quest, Education in Skills for Living Program, Findlay, Ohio; CASPAR, Somerville Alcohol Education Program, Somerville, Massachusetts; or Biofeedback, New Hampshire Lung Association, Manchester, New Hampshire. Concluded from the

literature review (Masney and other, 1979; Scheer and Williams, 1979; Sorenson and Joffe, 1975; Diehl, 1969; Jason and Mollica, 1979; Greenberg and Deputat, 1978; Dennison and Prevet, 1980; Carlson and McGlathery, 1979; Gonser, 1979; James, 1979; Ungar, 1979; Evans and Middleton, 1979; Governali and Seachrist, 1980; Roberts, 1980; Stone, 1978) was that a combination of cognitive and affective interventions was superior in improving student smoking and alcohol knowledges, attitudes, and behavior as compared to the abstinence philosophy.

The project staff next analyzed the demographic characteristics and health needs of the selected target population of 1,053 middle school students. Significant data findings were as follows: (1) 54 per cent of all 6th graders have had an alcoholic drink and the proportion increased to 80 per cent in grades 7 and 8; (2) Approximately 16 per cent of the students drank at least once a week by eight grade; (3) Motor vehicle accident mortality in the 15-24 age group for the county was 89/100,000 compared to the state rate of 49/100,000 in 1978; (4) In 1980, there were five arrests for DWI in the 16-18 age group in the county; thirteen reported liquor law violations in the 12-18 age group, and nine cases of disorderly intoxication (16-18 years) (30); (5) The Putnam County mortality rate related to smoking, e.g., lung cancer, stroke, and heart disease, is consistently higher than the state average; (6) The county has been

designated as a high infant mortality area by the Office of Vital Statistics; (7) Cigarette abuse behavior of 20 per cent is comparable with the national average and; (8) 65 per cent of the middle school students and 59 per cent of the high school smokers want to quit smoking (Pittman, 1981).

As the final task in the first section of the HAPPS model, program resources were investigated and defined in order to ensure an adequate base for achieving program outcomes. In addition to the $84,689.00 program budget for staff salaries, materials, facilities, and travel, other sources of community support were identified, e.g. Educational Consortium Staff, HRS Evaluation Consultants, voluntary agencies, and community agencies. Finally, an intervention strategy was designed to include all resources in some component of the program.

After reviewing the available resources, the magnitude of the health problems, target population demographic characteristics, and the state of the art, realistic and specific outcome and impart objectives were written by the staff. Examples of the developed outcome objectives included:

(1) To reduce the 15-24 age specific motor vehicle mortality rate in Putnam County from 89/100,000 (1978, Florida Vital Statistics) by 15 per cent to >57/100,000 by June 30, 1984.

(2) To reduce the number of persons age 15-19 injured in alcohol associated motor vehicle accidents in Putnam County from 34.7 by 35% to 22.6 by June 30, 1984.

Related impact objectives which are considered indicators of health status were also designed. The alcohol impact objectives addressed the reduction of the mean number of drinks consumed for a particular time period, or the maintenance or increasing of the prevalence of "abstainers" for each of the identified target populations, e.g., 6th, 7th and 8th grade classes. The smoking impact objectives also considered the reduction of the mean number of cigarettes smoked, maintaining the prevalence of never smokers, or the reduction in the number of smokers.

The establishment of formal intervention strategies was accomplished next following the health field concept model. This model indicates that some health problems can be ameliorated by changes in risk factors or personal choice health behaviors as well as environmental, health care systems, or human biology determinants (Dover, 1980). Also, predisposing, enabling, and reinforcing factors (Green and others, 1980) affecting the target populations behavior were considered in the design of the intervention strategies. Examples of intervention strategies developed included the following:

1. Instructional Units for middle school students provided a decision-making knowledge base about the use and abuse of

alcohol and cigarettes. Teaching units were based on the primary concept that changes in attitudes and behavior can occur when students are provided the opportunity to make informed behavioral decisions based upon factual information.

2. Life Skills Units were designed to help students develop self-management techniques, recognize the importance of personal responsibility for decisions, and to cope with daily stresses.

3. Smoking Cessation Classes were designed to include concepts of self-awareness, self-control, risks, and a needed social support group for cigarette cessation.

After the invention strategies were established, specific process objectives were written by the staff. These specific and easily measurable objectives included knowledge or attitudinal change as measured by pre-post tests, e.g., by May 29, 1981, increase target group knowledge of the risks and effects of alcohol abuse as evidenced by students increasing their mean post-test scores by 30 per cent.

The last planning step prior to program implementation, was the development of a detailed and time specific tasks list needed to accomplish for each of the process objectives. Examples of various tasks included: (1) design, implement, and evaluate instructional and life skills units; (2) train peer facilitators; (3) review and revise instructional program (if necessary) based

on evaluation results.

Program Evaluation

Year One

The first year of the project consisted of only one academic semester. A modified educational component was the only intervention. An analysis of year one process objectives indicated that 100 per cent of the knowledge objectives and 47 per cent of the attitude objectives were attained. Based upon the data analysis from valid and reliable instruments developed by an outside consulting firm, there was a significant decrease in the mean number of alcohol drinks "consumed last week" and "cigarettes smoked last week" for sixth and seventh graders. All grades indicated significant knowledge score increases, but attitudinal scores remained constant.

Year Two

Year two of the project included two academic semesters, a fully implemented life skills program, alcohol and smoking cessation programs, and a teenage pregnancy program. An analysis of year two impact and process objectives indicated that one out of six alcohol impact objectives were achieved in the area of abstaination from alcohol use, and two out of six smoking impact objectives were achieved in the area of prevalence of never smoked. All of the alcohol and cigarette knowledge based process objectives were achieved whereas none of the attitudal objectives

were met. Specifically, the alcohol knowledge prepost test scores indicated that all target group students cored significantly higher on the post test at the < .05 level.

Year Three

Year three of the project included the same work program as year two. Eight out of twelve impact objectives were achieved in the areas of prevalence of never smoked, maintaining alcohol abstinence, or reducing the number of current smokers. All process knowledge objectives were met, but none of the attitude objectives were achieved statistically. Some attitudinal changes were noted in the area of self concept and perception of locus of control. However, the consultant developed instruments might have been too simple or insensitive to detect change. Unusually high test scores, at both pre and post testing, decreased the chances of early measuring changes.

Discussion

Nationally, the Adolescent Smoking and Alcohol Project was the first educational program to apply the Health Analysis and Planning Model and project planners had expected some problems. The model had previously been used to determine attainable objectives, but project staff did not plan for non-measurement of numerous impact and process objectives or for teacher burnout.

Objective Attainment Problems

Many of the project evaluation problems were related to described objective level attainment. The project staff were not

made aware of the specific objectives selected for measurement by an outside evaluation firm. Briefly, the National Risk Reduction Funding Guidelines called for an outside evaluator to evaluate all youth smoking and alcohol programs within a state. Florida for example, had three different funded alcohol and smoking projects with various program philosophies of decision making or abstinence. Second, initially the outside evaluators alcohol and cigarette literature knowledge base was limited and few data common measures were gathered during the complete project. Third, only some of the outside of the evaluator's measurement priorities were similar to the project's yearly desired behavioral outcomes.

Another project concern was the determination of precise and measureable behavioral objectives. During the first year project staff almost "guessed" as what would be a realistic and attainable behavioral objective, since the drug and alcohol literature contained little information related to program successes. Additionally, some years the desired objective level of attainment has to be established prior to the analysis of previous years data.

Lastly, the educationally focused project staff found it most difficult philosophically to develop behavioral objectives for a small target population such as pregnant teenagers. According to public health philosophy, pregnant teenagers are

considered a strong at risk population, with numerous health needs that should be addressed. A philosophical compromise was achieved when the pregnancy program was implemented, but the evaluation components were not emphasized.

Teacher Burnout

After three project years, many of the classroom teachers and specialist experienced symptoms of teacher burnout. Even though this was a mental health/health knowledge focused project, the precise work plan created stresses. Teachers were just tired of similar repetitions, thus indicating a need for teachers to become more actively involved in all project activities. Addressed, however, will have to be the general expectations of teachers via the union contract, e.g., teachers may leave at 3:30 P.M. and all meetings after 3:30 must include reimbursement for attendance.

Project Successes

Even though numerous problems existed in the areas of establishment and measurement of realistic objectives, some project successes should be noted. Specifically, the treatment group after three years as compared to the control groups, smoked fewer cigarettes and drank less alcohol; maintained a better level of never smoked or drank and; most importantly were involved in fewer car accidents.

Finally, the application of the HAPPS management system to a school based intervention program was a coordinated problem

solving approach. Community health long-term objectives (health status) were combined with short-term process educational oriented objectives (knowledge, attitudes) with the establishment of a common middle ground of behavior change. Existing now is a linkage between health outcomes and the educational process, which has been seldom documented either in the educational or in public health literature.

References

Alcohol: A Family Affair, (1974). Washington: USDHEW.

Baker, L. (1978, August). To help schools combating smoking. American Education.

Carlson, G. and McGlathery, G. (1979, July/August). The health activities project. Health Education.

Dennison, D. and Prevet, T. (1980, March). Improving alcohol related behaviors through health instruction. Journal of School Health.

Dever, G. (1980). Community health analysis, Aspen Publications.

Diehl, H. (1969). Tobacco and your health: the smoking controversy, McGraw Hill.

Evans, N. and Middleton, K. (1979, July/August). Two programs exemplify nationwide involvement in school health education; Health Education.

Gonser, H. (1979, July/August). Project prevention: an innovative K-12 health education curriculum, Health Education.

Gonzales, G. (1978, March). What do you mean - prevention. Journal of Alcohol and Drug Education.

Governali, J. and Seachrist, W. (1980, March). Clarifying values in a health education setting: an experimental analysis. Journal of School Health.

Green, L., Kreuter, M., Deeds, S. and Partridge, K. (1980). Health education planning: a diagnostic approach. Mayfield Publishing Company.

Greenberg, J. and Deputat, Z. (1978, June). Smoking interventions: comparing three methods in a high school setting, Journal of School Health.

Hamburg, M. (1980, Summer). Education as a preventive modality for alcohol abuse. Health Values.

James, G. (1979). Health activation curriculum for school health education, Health Education.

Jason, L. and Mollica, M. (1979). Comparative Effectiveness of Smoking Prevention Programs. American Psychological Association Convention.

Miles, S. (1974). Learning about alcohol: a resource book for teachers. American Association for Health, Physical Education and Recreation.

Mooney, C., Roberts, C., Fitzmahan, D. and Gregory, L. (1979, July/August). Here's looking at you - a school based alcohol education project. Health Education.

Pittman, C. (1981). Putnam County School Board Adolescent Smoking and Alcohol Project Application.

Purcell, G. (1980, January). Monthly vital statistics report. Department of Health and Rehabilitative Services, Office of Vital Statistics.

Roberts, S. (1980, December). Belief assessment as a component of curriculum planning: cigarette smoking as an example. Journal of School Health.

Scheer, J. and Williams, I. (1979, July/August). Quest: a skills for living curriculum. Health Education.

Sorenson, J. and Joffe, S. (1975, February). An outreach program in drug education: teaching a rational approach to drug use. Journal of Drug Education.

Stone, E. (1978, May). The effects of a fifth grade health education curriculum model on preceived vulnerability and smoking attitudes. Journal of School Health.

Summary of Third Report on Alcohol and Health (1978). Washington: DHEW.

Ungar, D. (1979, July/August). Helping adolescents learn to make personal decisions, Health Education.

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